

Claims

1. A column for the concentration of components for use in a high performance liquid chromatography, comprising a membrane for diffusing a target component and a membrane for adsorbing the target component.

2. The column as claimed in Claim 1, wherein the membrane for diffusing the target component is arranged on one side of, or both sides of, the membrane for adsorbing the target component.

3. The column as claimed in Claim 1 or 2, wherein the membrane for diffusing the target component is made of a sintered filter, a ceramic, a metallic mesh, or a cellulosic fiber.

4. The column as claimed in Claim 1 or 2, wherein the membrane for adsorbing the target component is a membrane containing a styrene resin, a silica gel, an ion exchange resin, or a substance prepared by chemically modifying any of these substances.

5. A high performance liquid chromatograph comprising a line connecting a transfer pump (P1), an injector (I), a switching valve (V), the column (M) for the concentration of components as claimed in Claim 1 or 2, a switching valve (V), a solvent mixer (MC), and a switching valve (V) in this order, and another line connecting a transfer pump (P2), a switching valve (V), a separation column (C) and a detector (D).

6. A high performance liquid chromatograph comprising a line connecting a transfer pump (P1), a switching valve (V), a solvent mixer (MC), and a switching valve (V) in this order, another line connecting a transfer pump (P2), a switching valve (V), a separation column (C), and a detector (D), and yet another line connecting a switching valve (V), the column (M) for the concentration of components as claimed in Claim 1 or 2, and a switching valve (V).

7. A process for analyzing a trace component in a sample in the high performance liquid chromatography as claimed in Claim 5, which comprises the steps of trapping a target component into the column (M) for the concentration of components ~~as claimed in Claim 1 or 2~~ by action of a mobile phase being transferred by the transfer pump (P1), and switching the switching valve to yield a target component as an effluent by action of a mobile phase being transferred by the transfer pump (P2).

8. A process for analyzing a trace component in a sample in the high performance liquid chromatography as claimed in Claim 6, which comprises the steps of filling the solvent mixer (MC) with a solvent through the transfer pump (P1) in advance, injecting a target component into the column (M) for the concentration of components ~~as claimed in Claim 1 or 2~~, and switching the switching valve to yield the target component as an effluent by action of a mobile phase being transferred by the pump (P2).